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EXAMINER
NGUYEN, KIMBERLY D

ART UNIT	PAPER NUMBER
2876	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/752,236	Applicant(s) FARIA ET AL.	
	Examiner Kimberly D. Nguyen	Art Unit 2876	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 March 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *11-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 March 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Amendment

1. Receipt is acknowledged of Amendment filed 3 October 2003.

Claim Objections

2. Claims 11 and 17 are objected to because of the following informalities:

- Claim 1, line 11: "it" is vague and should be replaced with "the electromagnetic transducer".

- Claim 17, line 11: "flux density of" should be inserted between "maximum" and "700 gauss".

- Claim 18, lines 14 and 16: "it" is vague and should be replaced with "the electromagnetic transducer".

Above replacement suggestion is based on the best knowledge of the Examiner; Applicants are respectfully welcomed to propose their own correction if disagree with the Examiner's suggestion.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 18 is rejected under 35 U.S.C. 102(b) as being anticipated by Zarembo et al. (US 5,625,339; hereinafter "Zarembo").

Zarembo teaches an apparatus or workstation for desensitizing or sensitizing electromagnetic markers attached to books or videos comprising:

a housing comprised of a base, a cover, and a magnet housing (fig. 2, col. 2, line 60 through col. 3, line 15);

an electromagnetic transducer secured to the base and the housing in position to emit electromagnetic flux through the wall of the magnetic housing, the electromagnetic transducer including a magnet, that is comprised of a core 32 and two coils 44 of concentrically wound wire, and a pair of intensifier blocks 40, 42, forward of the magnet, which focus the flux created by the magnet into a small space through the wall (figs. 4; col. 3, line 35 through col. 4, line 4);

electronic circuitry 110 to power the electromagnetic transducer with direct current or alternating current (fig. 1; col. 2, lines 32-59);

switch means to shift the power to the electromagnetic transducer between AC and DC current, such that, when the electromagnetic transducer is powered by DC current the electromagnetic transducer will desensitize magnetic security markers that are moved past the housing and the transducer, and when the electromagnetic transducer is powered by AC current, the electromagnetic transducer will sensitize magnetic security markers that are moved past the housing and electromagnetic transducers (figs. 2-3 and 5A-5D; col. 2, line 60 through col. 3, line 34; col. 4, lines 55-64); wherein the flux that is created by the magnet is focused between the intensifier blocks through the face of the housing into the magnetic security mark which moves

translationally across the path of the flux (as in claim 20, wherein the direction of the arrow 111 in fig. 2 serves as moving translationally across the path of the flux).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zarembo in view of Launt (US 3,898,595).

Zarembo teaches a device for desensitization or sensitization of magnetic security markers, such as those used on books or videos (see abstract), comprising:

an electromagnetic transducer 30 including a magnet comprised of a core 32 and coil 44 of concentrically wound wire, intensifier blocks 40, 42 forward of the magnet to focus the flux of the magnet (figs. 1 and 4; col. 2, line 32 through col. 3, line 15); electronic means 110 to power the electromagnetic transducer with DC or AC current; and switch means to shift the power to the transducer means between AC and DC, such that when the electromagnetic transducer is powered by DC current the electromagnetic transducer is will desensitize magnetic security markers that are moved past the transducer, and when the electromagnetic transducer is powered by AC current the electromagnetic transducer will sensitize magnetic security markers that are moved past the electromagnetic transducer (figs. 2 and 5A-5D; col. 3, lines 16-34; col. 4, lines 55-64).

Zarembo fails to teach or fairly suggest the core being comprised of laminated sheets of transformer steel, and the intensifier blocks being comprised of laminated layers of transformer steel.

Launt teaches layer of laminated steel may be used transformer-like core and pole pieces (intensifier blocks) for magnetic circuits or as magnetic shunting purposes (fig. 1; col. 2, line 63 through col. 3, line 8).

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to incorporate layer of laminated steel may be used transformer-like core and pole pieces for magnetic circuits or as magnetic shunting purposes as taught by Launt to the teachings of Zarembo in order to provide a transformer with a higher grade magnetic material (i.e., using laminated transformer steel for the core and intensifier blocks) to further saturate the magnetic force and prevent undesirable saturation effects (col. 1, lines 23-28). Furthermore, "the core being comprised of laminated sheets of transformer steel, and the intensifier blocks being comprised of laminated layers of transformer steel" does not give any specific purpose or clear technical intention of using the transformer steel for the core and the blocks; therefore, the claim is interpreted as broad as possible (i.e. there is not much weight on the "laminated sheets of transformer steel" as in this specific claim) by the Examiner.

Re claim 12: Zarembo teaches a device for desensitization or sensitization of magnetic security markers, wherein the electromagnetic is comprised of two electromagnetic coils 44 and a core 32 (figs. 4 and 5a; col. 3, lines 35-64; col. 4, lines 5-9; and col. 4, lines 55-64).

7. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zarembo as modified by Launt as applied to claim 11 above, and further in view of Holce et al. (US

5,808,846; hereinafter "Holce"). The teachings of Zarembo as modified by Launt have been discussed above.

Although, Launt teaches a transformer core is comprised of layer of steel having thickness between .002" and .010" and high carbon steel may be used as transformer-like cores for coupling purposes (col. 2, line 63 through col. 3, line 8); Zarembo as modified by Launt fails to teach or fairly suggest the core is comprised of 36 sheets of .012" thick 3% grain oriented silicon sulfide transformer steel that are laminated together.

Holce teaches a sensing transformer 34 having a magnetically permeable core, wherein the core material is made of .012" thick 3% grain oriented silicon sulfide transformer steel (col. 4, lines 15-40).

It would have been an obvious design variation (by using 36 sheets of transformer steel) to an artisan of ordinary skill in the art to incorporate a core which is made of 36 sheets of .012" thick 3% grain oriented silicon sulfide transformer steel as taught by Holce to the teachings of Zarembo as modified by Launt in order to provide a better magnetic flux in the core (i.e. to reduce unwanted saturated effects and shocking hazards that could ruin the object passing by the transformer). Furthermore, (In re Rose, 105 U.S.P.Q. 237; In re Aller et al., 105 U.S.P.Q. 233; In re Dailey et al., 149 U.S.P.Q. 47; In re Reese, 129 U.S.P.Q. 402; In re Gibson, 45 U.S.P.Q. 230) it would have been an obvious expedient for one with ordinary in the art to modify the claimed invention as taught by Holce wherein the core's dimension and material made of the core could be varied size, shape and material.

8. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zarembo as modified by Launt and Holce as applied to claim 13 above, and further in view of Milberger et

al. (US 4,682,126; hereinafter "Milberger"). The teachings of Zarembo as modified by Launt and Holce have been discussed above.

Although, Launt teaches a transformer pole pieces (intensifier blocks) are comprised of layer of steel having thickness between .002" and .010" and dead soft steel would be used as pole pieces (col. 2, line 63 through col. 3, line 8); Zarembo as modified by Launt and Holce fails to teach or fairly suggest the device, wherein the intensifier blocks are compromised of 32 sheets of 14 mil transformer steel that are laminated together.

Milberger teaches a laminated silicon steel core 10, which comprises 14 mil silicon steel laminations 12, which serves as a plurality of sheets of 14 mil transformer steel that are laminated together; and 64 mil transformer pressed paper board separators 14 (fig. 1; col. 2, lines 31-39).

In view of Milberger's teaching, it would have been an obvious design variation to an artisan of ordinary skill in the art to incorporate 32 sheets (instead of plurality of sheets as taught by Milberger; col. 2, lines 31-39) of 14 mil silicon steel laminations into the making of the transformer intensifier blocks (instead of the core as taught by Milberger; col. 2, lines 31-39) to the teachings of Zarembo as modified by Launt and Holce in order to provide intensifier blocks, which are made of thin laminations of magnetic material such as silicon steel (col. 1, lines 64-66) to further reduce the weight of the intensifier blocks (col. 2, line 1).

9. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zarembo as modified by Launt as applied to claim 11 above, and further in view of Schaefer (US 4,042,870). The teachings of Zarembo as modified by Launt have been discussed above.

Although, Zarembo teaches the advantages of the design of the magnetic-field-generator/transducer to maximize the flux across the tip of the poles 40 and 42 (col. 4, lines 32-54), which serves as the width of the flux is equal to the width of the transducer; Zarembo as modified by Launt fails to teach or fairly suggest the device, wherein the electromagnetic transducer produces a flux having a depth of 2 inches, a width equal to the width of the transducer and a flux density no greater than 700 gauss.

Schaefer teaches a device, wherein the electromagnetic transducer produces a flux having a small size (which serves as the depth of the flux), on the order of one eighth of one cubic inch and the flux density to be lower than 200 gauss (col. 5, line 51 through col. 6, line 6), which serves as a flux density no greater than 700 gauss.

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to modify the size and the density of the flux as taught by Schaefer to the teachings of Zarembo as modified by Launt in order to obtain a particular flux's size and density as claimed in this instant invention to further provide a desensitize/sensitize system with a magnetic field of only a small distance (i.e. 1 or 2 inches) to desensitize or sensitize the marker.

10. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zarembo in view of Schaefer.

Zarembo teaches the method of desensitizing or sensitizing a magnetic security marker attached to books or videos by an electromagnetic transducer workstation comprising the steps of:

switching the power to the transducer to direct current (figs. 5A-5D; col. 4, lines 55-64);

emitting electromagnetic flux (fig. 4; col. 3, lines 35-64);

moving the marker in translational movement (direction of the arrow 111 in fig. 2 serves as translation movement) by the workstation and the transducer and its emitted flux to desensitize the marker (figs. 2-3; col. 2, line 60 through col. 3, line 34);

switching the power to the transducer to alternating current (figs. 5A-5D; col. 4, lines 55-64);

emitting electromagnetic flux (fig. 4; col. 3, lines 35-64);

moving the marker in translational movement by the workstation and transducer to sensitize the marker wherein the desensitizing/sensitizing procedure is accomplished without damage to videos because of the short range and low flux/density (figs. 2-3; col. 2, line 60 through col. 3, line 34).

Zarembo fails to teach or fairly suggest electromagnetic flux having a range of 2 inches or less, and of a maximum flux density of 700 gauss.

Schaefer teaches a device, wherein the electromagnetic transducer produces a flux having a small size (which serves as the depth of the flux), on the order of one eighth of one cubic inch and the flux density to be lower than 200 gauss (col. 5, line 51 through col. 6, line 6), which is in the range of the maximum 700 gauss.

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to modify the size and the density of the flux as taught by Schaefer to the teachings of Zarembo in order to obtain a particular flux's size and density as claimed in this instant invention to further provide a desensitize/sensitize system with a magnetic field of only a small distance (i.e. 1 or 2 inches) to desensitize or sensitize the marker.

11. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zarembo in view of Schaefer. The teachings of Zarembo have been discussed above.

Although, Zarembo teaches the advantages of the design of the magnetic-field-generator/transducer to maximize the flux across the tip of the poles 40 and 42 (col. 4, lines 32-54), which serves as the width of the flux is equal to the width of the transducer; Zarembo fails to teach or fairly suggest the apparatus or workstation for desensitizing or sensitizing electromagnetic markers, wherein the transducer produces a flux having a depth of 2 inches, a width equal to the width of the transducer, and a flux density no greater than 700 gauss, wherein the desensitizing/sensitizing procedure is accomplished without damage to videos because of the short range and low flux density.

Schaefer teaches a device, wherein the electromagnetic transducer produces a flux having a small size (which serves as the depth of the flux), on the order of one eighth of one cubic inch and the flux density to be lower than 200 gauss (col. 5, line 51 through col. 6, line 6), which serves as a flux density no greater than 700 gauss.

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to modify the size and the density of the flux as taught by Schaefer to the teachings of Zarembo as modified by Launt in order to obtain a particular flux's size and density as claimed in this instant invention to further provide a desensitize/sensitize system with a magnetic field of only a small distance (i.e. 1 or 2 inches) to desensitize or sensitize the marker.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nakagawa et al. (US 5,804,959) teaches shunt core transformer with a second secondary coil comprised of a ferrous material.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly D. Nguyen whose telephone number is 703-305-1798. The examiner can normally be reached on Monday-Friday 7:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on 703-305-3503. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-1341 for regular communications and 703-305-1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-8792.

KDN
May 19, 2003

MICHAEL G. LEE
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